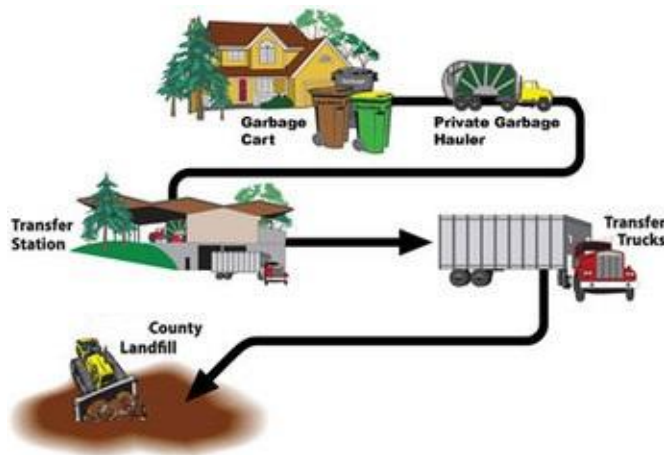




# Solid Waste Management

In 1992 Cochise County entered into an Intergovernmental Agreement (IGA) – an agreement between two or more governments - with the Cities of Benson, Bisbee, Douglas, Sierra Vista, and Willcox. The agreement designates the County as the operator/manager of the Solid Waste System. The agreement specifies the physical configuration of the system, the general method of operation, and the required formation of a committee, known as the Rate

Review and Advisory Board (RRAB), to periodically review the System from a financial and operations standpoint, for the purpose of making changes and setting the tipping fee.



There were a number of reasons for the adoption of the IGA and the creation of a County-Wide System:

- 1.) The federally governed Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ) had recently adopted new, stringent landfill regulations which would significantly impact the practices of the 5 existing landfills located in each of the member cities.



- 2.) The County and cities recognized the desirability of working together to minimize negative environmental impact from past disposal practices and utilize the best current practices to protect the environment from consequences of future solid waste disposal.



- 3.) The participants recognized the advantages in cooperation regarding diversion of solid waste in Cochise County and the increased pressures of developing a county-wide recycling program.

The participants assumed the significant financial advantages to be realized through the economies of scale associated with a Regional solution to a county-wide problem.

The County, through ADEQ, was deemed responsible for the construction, operation, and management of the Cochise County Solid Waste Disposal System. The RRAB, the committee made up of one representative from each IGA participant, was established to periodically review the fee structure and operational efficiencies of the Solid Waste System. A designated chairman from one of the member cities presides over these meetings. RRAB recommendations are to be presented to the County Board of Supervisors for adoption as they judge appropriate.

## Current Rate Review Advisory Board (RRAB) Members

**Cochise County-** Jim Vlahovich, County Administrator

**City of Benson-** Bill Stephens, City Manager

**City of Bisbee-** Richard Marsh Jr., City Manager

**City of Douglas-** Brenda Aguilar, Acting City Manager

**City of Sierra Vista-** Chuck Potucek, City Manager/RRAB Chairman

**City of Tombstone-** Dusty Escapule, Mayor

**City of Willcox-** Ted Soltis, City Manager



# History/Accomplishments

**1992**



- ❖ The County adopts the conceptual framework of a Regional Solid Waste Management System plan.
- ❖ In August, the cities of Benson, Bisbee, Douglas, Sierra Vista, and Willcox enter into an IGA with Cochise County for the purpose of developing a Regional System for the use and benefit of their citizens in accordance with State and Federal laws.
- ❖ The Town of Huachuca City chooses not to participate.

**1993**

- ❖ Management of the Solid Waste System was placed under the existing County Facilities Department, and the new entity was renamed the Department of Facilities and Solid Waste Management.
- ❖ A half-cent sales tax was passed in order to pay for the costs of acquisitions, construction, and equipment.
- ❖ Transfer stations at all urban (member cities) and rural sites were constructed, two cells at the Eastern Regional Landfill (ERL) located in Elfrida were completed, and transfer trailers were purchased.
- ❖ Hauling services were contracted out.
- ❖ Preparations got under way for the closing of the five municipal landfills located in each of the member cities.
- ❖ In compliance with State law and at the direction of the County Board of Supervisors (BOS), the Department prepared a Waste Tire Management plan.



## 1994

- ❖ A first amendment is made to the original IGA established in 1992.
- ❖ The City of Tombstone is added as a member city and a rural transfer station is constructed there for the collection and transportation of their municipal solid waste.
- ❖ To improve the efficiency of hauling and to eliminate rental fees for containers, roll-off containers were purchased for the five urban transfer stations.
- ❖ County Administration, with Board approval, started construction on Building C in the Melody Lane complex to be able to consolidate the Facilities and Solid Waste Management Services into one departmental location.



## 1995

- ❖ A contract was awarded for engineering services related to the closure of the small municipal landfills.
- ❖ The BOS passed Resolution #96-39 authorizing a "Free Dump Day" on a trial basis at each of the urban and rural transfer stations.
- ❖ The free dump day was for residential customers only.
- ❖ Building C at the Melody Lane complex was completed.

## 1996

- ❖ The second cell at the ERL in Elfrida was completed.
- ❖ Official work began on the closing of the small municipal landfills located in each of the member cities.

## 1997

- ❖ The small municipal landfills are closed in compliance with all applicable regulatory requirements.
- ❖ Improvements in system efficiency are enacted.
- ❖ "Free Dump Day" each year at each site continues on.



## 1998

- ❖ "Let's Talk Trash" Waste Reduction Education Program is established to help inform the public of the benefit of recycling in the County.

## 1999

- ❖ Preliminary preparations are made to construct the new Western Regional Landfill (WRL) located on County owned land in Whetstone.

## 2000

- ❖ A second amendment is made to the IGA establishing a Capital Improvement Fund for the existing and future costs of landfill development.
- ❖ A contract is awarded for design and construction of the WRL.

## 2001



- ❖ The WRL officially opens and starts receiving refuse in December of this year.
- ❖ The ERL located in Elfrida preliminarily closed.
- ❖ The Elfrida location becomes a rural transfer site for collection and transporting of refuse to the WRL in Whetstone.

## 2002

- ❖ As part of the "Let's Talk Trash" Waste Reduction Program, Solid Waste staff met with member cities to coordinate an effort to purchase cardboard balers through ADEQ grants for each urban transfer station.
- ❖ The purpose is to set up a systematic method to get recycled material to market which will help off-set the costs and lost tipping fee revenue associated with free recycling.

## 2003

- ❖ The ERL in Elfrida is in the process of obtaining closure status by ADEQ.
- ❖ Recycling is temporarily suspended due to costs and failure to obtain balers and other equipment needed to keep the program sustainable.
- ❖ The design of Cell #2 is completed at the WRL.
- ❖ Finalized installation of six additional gas probes at the ERL as well as six at the WRL to allow methane gas monitoring to be done that will assist in maintaining compliance with ADEQ.
- ❖ A contract was awarded for a study of the City of Douglas' municipal solid waste collection service.
- ❖ The purpose of the study was to address equipment, staffing, financial issues, and to provide recommendations to the RRAB that would assist in the impact to the overall system.



## 2004

- ❖ Construction completed for Cell #2 at the WRL.
- ❖ Completed design for the closure of the ERL with plans officially forwarded to ADEQ for approval.



- ❖ RRAB recommends approval to the County BOS to bring the solid waste hauling "in house" rather than continuing to contract it out.
- ❖ Six full-time drivers were hired and six International Semi-Tractors were purchased on contract.
- ❖ An IGA was entered into with the Arizona Department of Corrections that provided inmate labor at Solid Waste sites and select County facilities.
- ❖ A Waste to Energy Program was presented to the RRAB for consideration.



## 2005

- ❖ Waste to Energy Program was determined not to be feasible at this time.
- ❖ A Federal Undocumented Alien (UDA) grant was awarded to the department to help cover costs associated with the clean-up of illegally dumped refuse throughout Cochise County (also known as “Wildcat Dumping”).
- ❖ Two Solid Waste Inspector positions were created to assist in identifying these illegal dumping “hot spots” and assist in cleaning them up.
- ❖ Initiated closure preparations for the ERL.
- ❖ Completed construction of new fee sheds at the rural transfer stations.
- ❖ Current tipping fee is \$42.50 per ton.



## 2006

- ❖ A third amendment is made to the IGA establishing a 10 year term to the IGA with a termination date of July 2017.
- ❖ Installation of the final cap on the ERL is done.
- ❖ Final acceptance notification by ADEQ pending.
- ❖ The solicitation for construction and design of Cell #3 at the WRL begins.
- ❖ Estimate breaking ground in late 2007.
- ❖ Current tipping fee is \$43.50 per ton.

## 2007

- ❖ Waiting for final acceptance notification from ADEQ for the closure of the ERL.
- ❖ Completed the design of Cell #3 with construction scheduled to start in early 2008.
- ❖ The County BOS vote to create a new Solid Waste Management Department, splitting it from the Facilities Department.
- ❖ A Solid Waste Director position is established and filled immediately.
- ❖ Awarded a contract for a Recycling Feasibility Study to be



done to identify all aspects of re-establishing a viable and sustainable recycling program throughout Cochise County.

- ❖ Established a Recycling Advisory Committee made up of local citizens and business leaders to analyze recommendations and report on the Recycling Feasibility Study.
- ❖ Current tipping fee is \$45.50 per ton.

## 2008

- ❖ Final closure for ERL approved by ADEQ.
- ❖ RRAB met and due to shortage of funds and high cost of constructing Cell #3, it was decided to construct only half of Cell #3.
- ❖ Cell #3A was completed later in the year.
- ❖ Results from the Recycling Feasibility Study were reviewed and a recommendation to re-establish a viable recycling program was established.
- ❖ Baling equipment was purchased for each of our urban sites so they could bale the cardboard coming in.
- ❖ Compactors and recycle bins were also purchased to collect single stream recyclables that are transported to the Sierra Vista Transfer Station to be processed.
- ❖ A large baler along with a conveyor line was purchased and installed at the Sierra Vista Transfer Station to assist in the processing of recyclable material.
- ❖ Current tipping fee is \$46.50 per ton.





## 2009

- ❖ Developed a new program for the future capitalization of all Solid Waste equipment.
- ❖ Recycling program expanded to accept additional recyclable items to its approved mix.
- ❖ Established a metal recycling program where all metal being collected at each site was transported to the WRL for further processing.
- ❖ Recycling booth set up at annual County Fair.
- ❖ Overall refuse tonnage start to drop due to downturn in economy.
- ❖ Current tipping fee is \$47.50 per ton.

## 2010

- ❖ Brought all ADEQ required gas and water testing for the closed ERL and current WRL “in house.”
- ❖ Was previously done by outside contractors
- ❖ RRAB met to discuss recycling equipment needs at the Sierra Vista Transfer Station to keep up with increased volumes.
- ❖ Expansion of metal recycling center infrastructure started at the WRL.
- ❖ Cost cutting measures as well as significant tipping fee increases presented to RRAB and BOS for consideration.
- ❖ A Hazardous Material Waste Screening Program is established at all sites to assist in keeping dangerous, non-acceptable material from entering our facilities.
- ❖ New Employee Safety and Compliance Program established.
- ❖ Current tipping fee is \$49.00 per ton.



## 2011

- ❖ A fourth amendment was made to the IGA that approved the donation of recyclable equipment by the City of Sierra Vista to the Solid Waste Management System that would allow the expansion of the recycling processing center already in place at the Sierra Vista Transfer Station.
- ❖ A fully fledged Material Recovery Facility (MRF) is established where all acceptable recyclable material are baled separately and marketed to increase overall recycling revenues.
- ❖ Current tipping fee is \$50.00 per ton.

## 2012

- ❖ RRAB met to discuss Cell #3B construction as well as purchasing outbound scales at the Douglas and Sierra Vista Transfer Stations that would allow all customers to be weighed.
- ❖ Current method allowed residents only to be charged on a flat fee structure according to volume, similar to the rural transfer stations, which do not have scales.
- ❖ Proposal for scales would generate enough revenue to pay back scale purchase in two years.
- ❖ RRAB and BOS approved both actions.
- ❖ The UDA grant ends due to restricted funding.
- ❖ One inspector position is retained to assist in continued efforts to reduce "Wildcat Dumping" throughout Cochise County.
- ❖ Current tipping fee is \$51.00 per ton.



## 2013

- ❖ Cell #3B construction contract awarded and completed in September.
- ❖ RRAB and BOS approve to establish a \$35 per ton tipping fee for all city members of the system that have to haul refuse directly to the landfill when needed and approved in advance.
- ❖ RRAB met to discuss the possibility of having a private consultant perform an overall system analysis study to identify efficiencies and potential cost saving opportunities.
- ❖ Increased the flat fee structure charged at the rural transfer stations for the first time in many years. Each pricing category increased by \$1.00.
- ❖ Established a separate tipping fee for just construction and demolition debris that comes into the transfer stations.
- ❖ Current tipping fee is \$52.00 per ton.



## 2014

- ❖ RRAB and BOS approve recommendation to purchase modern scale software that will assist in fee and accounts receivable collection.
- ❖ Previous software was over 20 years old.
- ❖ A contract was awarded for a private consultant to perform an Operational Efficiency Study.
- ❖ Approved contract to have a Density and Landfill Lifespan Study performed to help determine WRL closure timeframe as well as the amount of money needed yearly from operations to fully fund closure when the time arrives.
- ❖ Current Director retires and a replacement is hired.
- ❖ Approved recommendations made from Operational Efficiency Study are implemented into the system.
- ❖ Due to increased volume of recyclable material, reduction in the value of recyclable material, and reliability of inmate labor; it was decided to shift



from baling/processing our own material to having it transported by County truck to a material handling facility in Tucson for processing.

- ❖ This reduced overall costs to the Recycling Program and reduced the burden that recycling puts on the Sierra Vista Transfer Station.
- ❖ Current tipping fee is \$53.50 per ton.

## 2015

- ❖ RRAB meet to discuss potential changes that may need to be made to IGA when it expires in July, 2017.
- ❖ RRAB and BOS approve purchase of a GPS system that will assist operators at the WRL to get increased refuse compaction that will result in overall air space savings.
- ❖ Discussions on converting transfer stations to an open top system is delayed due to high cost estimates.
- ❖ New Director resigns and the current Administrator of Community Development appointed as acting Director.
- ❖ RRAB and BOS approve to solicit companies for potential privatization of the entire Solid Waste Management System.
- ❖ Current tipping fee is \$55.00 per ton.





## 2016

- ❖ Received no valid proposals from outside companies to privatize system.
- ❖ RRAB and BOS approve to shelve idea and look at getting current tipping fee to the appropriate dollar amount that will cover current operating costs and start to address all necessary capitalization costs going forward.
- ❖ After further review of operational efficiencies, the RRAB and BOS vote to raise the tipping fee from the current \$57.75 per ton to \$64 starting September 15, 2016.
- ❖ Awarded contract for design and construction of Cell #4. Anticipate completion of Cell #4 in spring of 2017.

### Future Home of Cell #4



## Solid Waste Management Directors



Martin Haverty- 2007 to 2014



David Horne - 2014 to 2015



Karen Riggs- 2015 to Present



## Fun Facts

- ❖ One Queen Size mattress takes up 23 cubic feet of air space in a landfill; twice the area of normal municipal solid waste. We land filled over 7,500 mattresses in 2016; that's enough to extend 12 miles long end to end.
- ❖ Since its inception in 1992, the Cochise County Solid Waste System has taken in over 1.7 million tons of refuse from Cochise County residents. That is the equivalent of 9,714,285 cubic yards of material. Enough to fill the Arizona Cardinals stadium 4 times.
- ❖ Each year, more than 105,260 waste tires are collected in Cochise County and transported for recycling. That's enough to construct 5 artificial turf football fields per year.
- ❖ Solid Waste drivers travel over 345,000 miles per year to get refuse to the landfill. That is enough miles to start at the equator and drive around the earth almost 14 times.
- ❖ In order to construct one cell at the Western Regional Landfill, over 500,000 cubic yards of dirt needs to be excavated. That's enough dirt to build over 600 miles of road, 2 inches thick.
- ❖ In 2016 the Solid Waste Department collected and recycled over 16,500 gallons of waste oil from Cochise County residents. That's enough to perform an oil change on over 13,200 vehicles.
- ❖ Over 109,000 people use our sites each year. That is enough to more than fill the largest sports stadium in the United States. (University of Michigan 107,601 seats)